Gulf of Mexico Harmful Algal Bloom Bulletin

24 November 2004

National Ocean Service

National Environmental Satellite, Data, and Information Service

Last bulletin: November 22, 2004

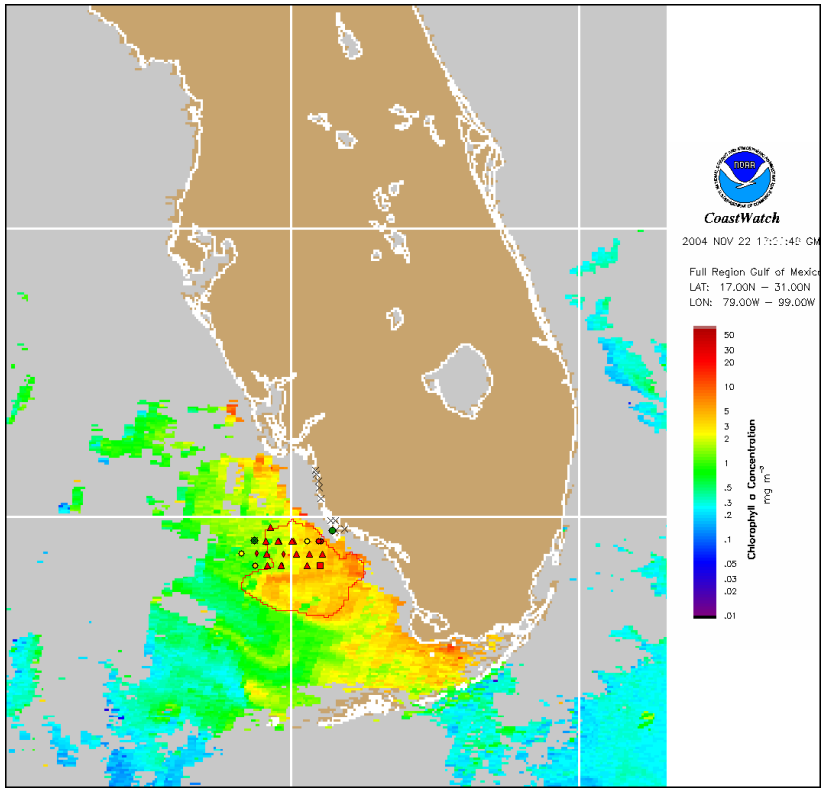
Conditions: A harmful algal bloom has been identified off the coast of Cape Romano. Discolored water is possible southwest of Cape Romano. Beach impacts are possible through Thursday, unlikely through the weekend.

Analysis: The confirmed bloom is currently located southwest of Cape Romano, south of Marco Island. Onshore samples indicate no Karenia brevis from Clam Pass to Caxambas Pass. Cloudy imagery since Monday makes precise distance traveled in the last two days difficult to calculate, but southeasterly winds through the last week have slowed southern transport of the bloom. Bloom has moved slightly west, its east-west axis extending currently from 81°30'W to 82°16'W, with its center point at approximately 25°29'N 81°50'W. It has dissipated slightly along the western edge, with chlorophyll levels falling from over 10μg/L to less than 7μg/L, but chlorophyll levels in the northeast area of the bloom, at approximately 25°28N 81°34W, have intensified to greater than 8μg/L. Southerly winds through Thursday may move the bloom slightly north and onshore, but northeasterly and easterly winds through the weekend will make beach impacts unlikely and keep the bloom offshore.

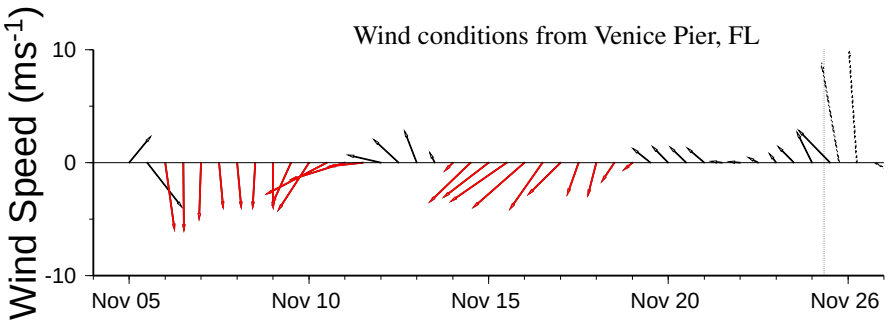
Chlorophyll levels off of Cape Sable continue to drop to below 5μg/L in association with the nonharmful bloom just north of the lower keys.

* Offshore samples indicated in chlorophyll image were collected during the week of November 11 from a MERHAB cruise.

-Stolz and Fenstermacher

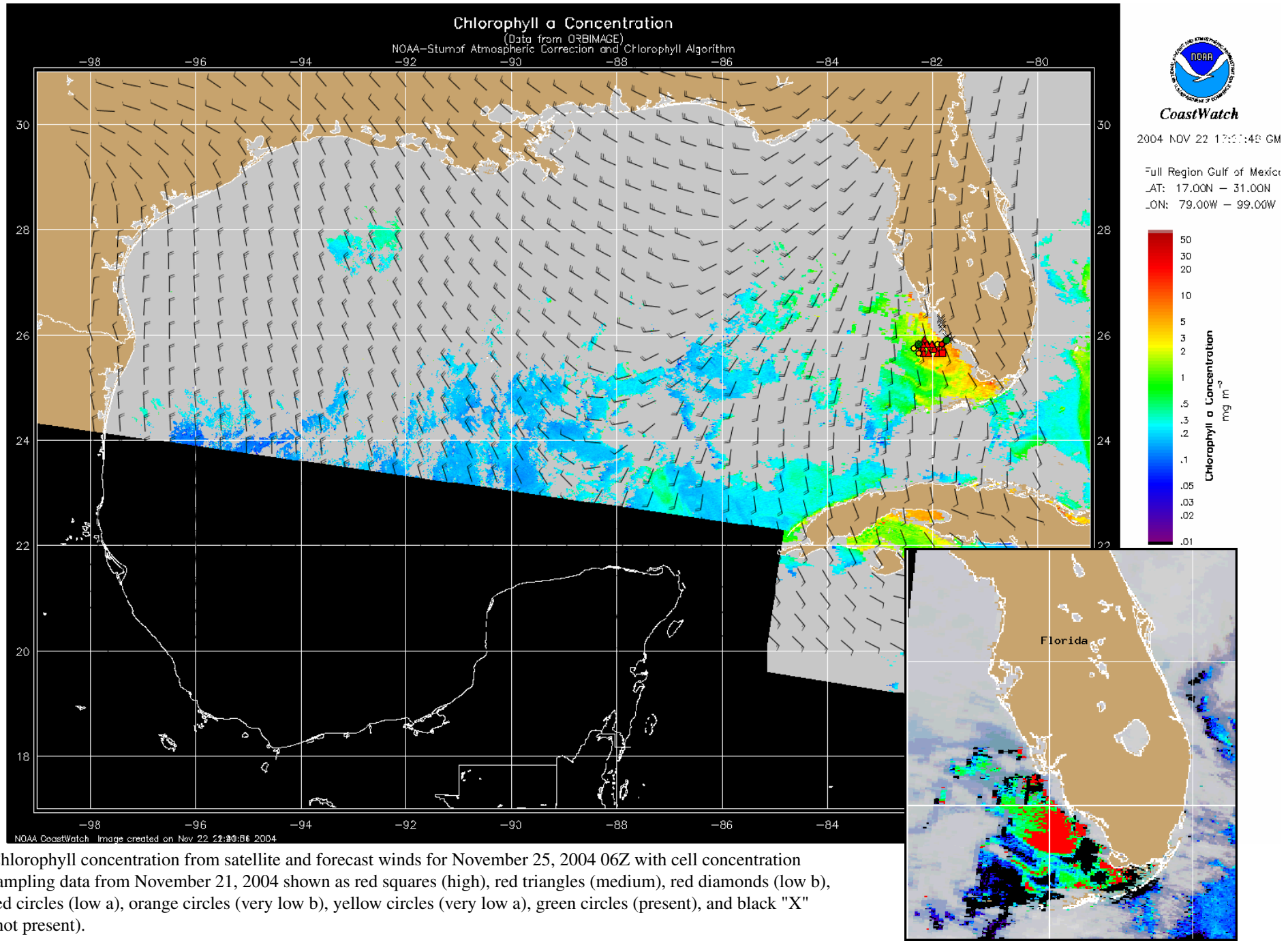


Chlorophyll concentration from satellite with possible HAB areas shown by red polygon(s). Cell concentration sampling data from November 21, 2004 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (present), and black "X" (not present).



Wind speed and direction are averaged over 12 hours from measurements made on buoys. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.

Winds forecasted southeast to south through tonight. 15-20 knot (7-10 m/s) southwesterlies on Thursday, shifting to northwest by Thursday night, still steady. Winds to decrease to 10-15 knots (5-7 m/s) by Friday out of the Northeast, and become easterly through the weekend.



Chlorophyll concentration from satellite and forecast winds for November 25, 2004 06Z with cell concentration sampling data from November 21, 2004 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (present), and black "X" (not present).

Blooms shown in red (see p. 1 analysis and image for interpretation)